**Catawba** is an American *Vitis labruscana* grape that was discovered by the Catawba River in North Carolina. The 180-day growing season in southern Missouri allows Catawba to ripen fully and avoid the high acid levels encountered in other eastern grape growing areas. The pinkish-blue berries are large and the clusters are medium in size. It has a "foxy" *labrusca* character. The vines are hardy and vigorous with susceptibility to several fungal diseases including black rot and downy mildew. Catawba ripens late, a couple of weeks after Concord. Catawba is a pinkish-blue grape that is processed as a white wine grape. It is not fermented on the skins so rice hulls are recommended for use in processing due to its "slip skin" characteristic. It makes a medium bodied, fruity, *labrusca* wine that is best made in a sweeter style. The wine is pink to orange in color.

**Cayuga White** is a hybrid wine grape released from the New York State Agricultural Experiment Station at Geneva in 1972. The clusters and berries are large and cluster thinning is recommended. The vines are vigorous and moderately winter hardy with susceptibility to several fungal diseases including black rot, downy mildew, and anthracnose. Cayuga White should be harvested at about 15 to 17 degrees Brix sugar level in Missouri for the best quality wine. It is usually picked about two weeks before Concord. It has nice, fruity (citrus) notes and could be described as “Germanic” (Riesling-like) in style. It is light bodied and light green in color.

**Chambourcin** is a French-American hybrid, blue-black wine grape with beautiful large loose clusters of medium-sized berries. The vines must be cluster thinned. The vine is low to moderately vigorous and is not reliably hardy in northern Missouri. Chambourcin is susceptible to several fungal diseases including powdery mildew and, to a lesser extent, downy mildew. Chambourcin ripens about the same time as Concord. It is processed as a red wine grape and is fermented on the skins. Chambourcin makes a high quality, full-bodied, dry red wine that is moderately fruity, possibly with some subdued berry notes. The wine color is medium to dark red.

**Chardonel** is a high quality white hybrid wine grape released from the New York State Agricultural Experiment Station at Geneva, New York in 1996. It is a cross of Chardonnay by Seyval Blanc and is very similar in flavor to its Chardonnay parent. It is a moderately vigorous and moderately cold hardy vine that is highly productive and requires cluster thinning to prevent over cropping and to achieve maximum quality. It has moderate to large-sized clusters of medium-sized berries and is somewhat more rot resistant than its Chardonnay parent. It has been found to be susceptible to the root form of Phylloxera and may benefit from grafting to a pest resistant rootstock.

**Concord** grapes were selected from the wild in the 1840s in Concord, Massachusetts. This American *Vitis labruscana* has the characteristic foxiness associated with *labrusca* grapes. Concord has medium-sized clusters of large berries. Uneven ripening of the berries can be a problem in warm climates. The vines are very winter hardy and vigorous. They are susceptible to powdery mildew and black rot. Concord ripens in early September in south-central Missouri. Concord is fermented on the skins, as recommended for red wine grapes. Since it is fermented on the skins, it does not need rice hulls in processing even though it is a "slip skin" *labrusca* type. Concord is best made into a sweeter style wine that is fruity and candy-like. To achieve this style, after fermentation on the skins, it should then be processed as a white wine. Concord is medium in body and is deep blue-purple in color.

**Norton/Cynthiana** is an American grape, *Vitis aestivalis*, which was found in 1835 near Richmond, Virginia. Sometimes called Virginia Seedling, it is the premium red wine grape in Missouri. There is some controversy as to the name. Some call the grape Norton and others Cynthiana, but most consider both one and the same. The clusters are small to medium-sized with small blue-black berries. Norton is very hardy and extremely vigorous and often must be trained to a divided canopy training system. It is one of the most disease resistant grape varieties, with some resistance even to black rot. Norton is the latest ripening grape in Missouri, about two to three weeks after Concord. Norton is processed as a red wine and is fermented on the skins. Norton makes a dry red wine that is medium in body with some fruity overtones. It is very dark in color.

**St. Vincent** is a red grape with a large berry size and moderately sized, loose clusters. It has high vigor and moderate to high degree of winter hardiness. The fruit matures late season. It should be cluster thinned and yield is high. The vine trains well to a cordon system with spur training. A good spray program is needed to control diseases. Loose clusters make it less susceptible to bunch rot. It is typically made into a dry, red wine or used for blending.

**Seyval Blanc** is a French-American white hybrid grape with large greenish-yellow clusters and medium-sized berries. Cluster thinning is necessary to prevent over cropping. The vines are moderately vigorous and moderately hardy. It is susceptible to fungal diseases including powdery mildew and bunches are susceptible to rot. Seyval Blanc ripens about two weeks before Concord. It is processed as a white wine and is not fermented on the skins. Seyval Blanc makes a good all purpose neutral, crisp, white wine that is light to medium in body. It is light green to straw in color.

**Traminette** is a late mid-season, high-quality white wine grape released by the New York State Agricultural Experiment Station in Geneva, New York in 1996. It is a cross between Joannes Seyve 23.416 and Gewürztraminer and produces fruit and wine quality similar to its Gewürztraminer parent. Vines are vigorous, moderately cold hardy, and have a late bud burst similar to that of Norton and Vignoles. It is moderately productive and does not require cluster thinning. It has a high percentage of *Vitis vinifera* in its background and grafting to pest-resistant rootstocks is recommended to overcome potential problems with the root form of Phylloxera. The wines have floral and fruity aromas with a fruity, somewhat spicy flavor and are currently growing in popularity in Missouri and the Midwest.

**Valvin Muscat** is a hybrid wine grape developed in the 1960’s and released from the New York State Agricultural Experiment Station in 2006. It is a mid-season white wine grape with moderately small, compact clusters. The vine exhibits upright growth with moderate vigor. It is considered moderately cold hardy. The overall level of disease observed is comparable to other interspecific hybrid grapes, and typically less than European grapes. Grapes should be harvested when a full muscat flavor is detected by direct tasting. Valvin Muscat wine has spicy, floral aromas and is suitable for the production of highly aromatic varietal wines or for blending purposes.

**Vidal Blanc** is a French-American hybrid grape. It has large clusters of medium to small size berries with small russet dots on them. Vines should be cluster thinned. The vines are moderately winter hardy and susceptible to several fungus diseases including powdery mildew and anthracnose. Vidal Blanc is harvested about a week or two after Concord. The clusters resist rot and can stay on the vine for a longer period of time compared to Seyval Blanc. Vidal Blanc is processed as a white wine grape and is not fermented on the skins. Vidal Blanc makes a very good white wine with fruity and floral notes. It can be described as "Germanic" in style and is light green to straw in color.

**Vignoles** is a white French-American hybrid wine grape cultivar that is widely grown in the East and Midwest. It produces a variety of high quality wine styles, including dry, off-dry, and sweet wines and is frequently used in white wine blends. Vignoles wines boast an aromatic, floral nose and excellent fruity flavors of stone fruit and citrus. It enjoys great popularity with Missouri’s wine-buying public. The vines have good cold hardiness and a later bud opening period than most wine grape cultivars, thus making it less susceptible to late frost damage. The clusters are small and very tight and are highly susceptible to bunch rots. It is an earlier ripening cultivar and is harvested in late August or early September.


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# Missouri Grape Facts

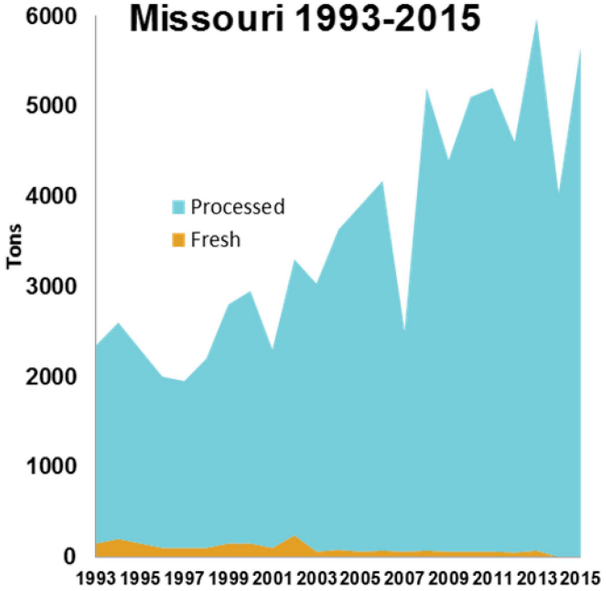
MISSOURI WINES™

**August 2016**

## Bearing Acreage and Yield by State, 2013 - 2015

| State | Bearing Acreage | | | Yield per Acre | | |
|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2013 | 2014 | 2015 |
| | *acres* | | | *tons* | | |
| AR | 720 | 700 | 700 | 2.49 | 2.13 | 2.14 |
| CA | 875,000 | 865,000 | 856,000 | 8.85 | 8.02 | 8.00 |
| GA | 1,600 | 1,600 | 1,500 | 2.88 | 2.50 | 3.33 |
| MI | 13,800 | 13,200 | 13,000 | 6.81 | 4.80 | 6.20 |
| **MO** | **1,700** | **1,700** | **1,700** | **3.51** | **2.37** | **3.32** |
| NY | 37,000 | 37,000 | 37,000 | 5.57 | 5.08 | 3.92 |
| NC | 2,300 | 2,300 | 2,300 | 2.26 | 2.61 | 3.17 |
| OH | 1,700 | 1,600 | 1,400 | 3.82 | 2.38 | 2.50 |
| OR | 18,500 | 19,000 | 19,000 | 2.65 | 3.05 | 3.42 |
| PA | 13,000 | 13,000 | 13,000 | 8.46 | 7.00 | 5.92 |
| TX | 4,400 | 4,000 | 3,800 | 1.65 | 2.35 | 3.00 |
| VA | 3,200 | 3,300 | 3,300 | 2.34 | 2.67 | 2.79 |
| WA | 69,000 | 72,000 | 70,000 | 5.68 | 7.11 | 5.99 |
| **US** | **1,041,920** | **1,034,400** | **1,022,700** | **8.28** | **7.62** | **7.51** |

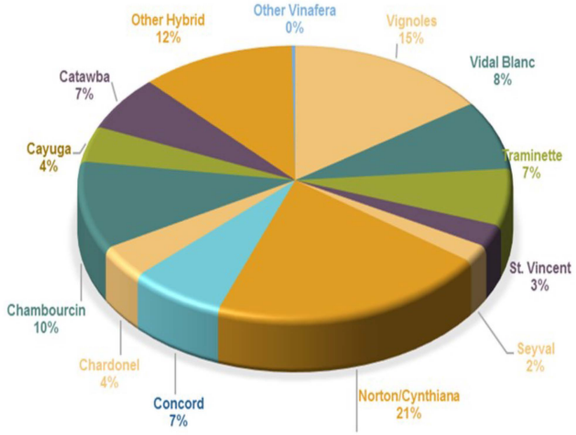
## Grape Production By Utilization Missouri 1993-2015



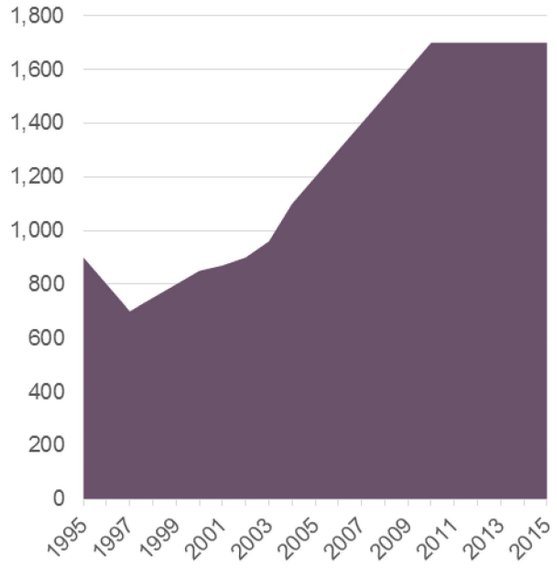

## Price and Value by State, 2013 - 2015

| State | Price | | | Value of Production | | |
|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2013 | 2014 | 2015 |
| | *dollars per ton* | | | *thousand dollars* | | |
| AR | 1,010 | 902 | 762 | 1,663 | 1,254 | 1,143 |
| CA | 719 | 756 | 724 | 5,565,734 | 5,239,693 | 4,954,220 |
| GA | 1,110 | 1,470 | 1,510 | 3,674 | 5,899 | 7,462 |
| MI | 373 | 306 | 313 | 35,017 | 19,353 | 25,200 |
| **MO** | **728** | **790** | **880** | **4,346** | **3,184** | **4,972** |
| NY | 373 | 385 | 390 | 75,327 | 69,350 | 56,599 |
| NC | 843 | 807 | 762 | 3,960 | 4,358 | 5,561 |
| OH | 590 | 476 | 410 | 3,634 | 1,695 | 1,427 |
| OR | 2,190 | 2,040 | 2,270 | 107,310 | 118,320 | 147,550 |
| PA | 317 | 318 | 319 | 33,555 | 28,338 | 24,598 |
| TX | 1,560 | 1,500 | 1,600 | 10,973 | 13,170 | 18,260 |
| VA | 1,800 | 1,850 | 1,950 | 12,600 | 15,170 | 17,940 |
| WA | 708 | 590 | 708 | 277,508 | 301,845 | 296,787 |
| **US** | **712** | **740** | **724** | **6,135,301** | **5,821,629** | **5,561,719** |

## Variety As A Percent Of Total Bearing Acres Missouri 2015



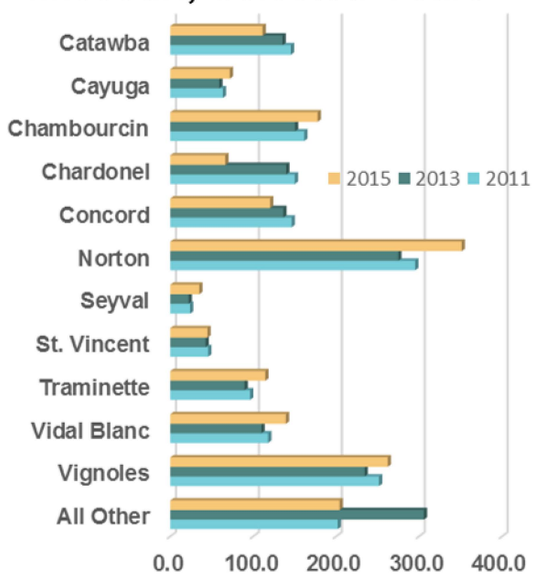

## Grape Bearing Acres Missouri 1993-2015




## Utilized Production by State, 2013 - 2015

| State | Utilized Production | | |
|---|---|---|---|
| | 2013 | 2014 | 2015 |
| | | *tons* | |
| AR | 1,640 | 1,390 | 1,500 |
| CA | 7,742,000 | 6,934,000 | 6,847,000 |
| GA | 3,300 | 3,900 | 4,950 |
| MI | 94,000 | 63,300 | 80,600 |
| **MO** | **5,970** | **4,030** | **5,650** |
| NY | 202,000 | 180,000 | 145,000 |
| NC | 4,700 | 5,400 | 7,300 |
| OH | 6,160 | 3,560 | 3,480 |
| OR | 49,000 | 58,000 | 65,000 |
| PA | 106,000 | 89,000 | 77,000 |
| TX | 7,040 | 8,800 | 11,400 |
| VA | 7,000 | 8,200 | 9,200 |
| WA | 392,000 | 512,000 | 419,000 |
| **US** | **8,620,810** | **7,871,580** | **7,677,080** |

## Bearing Acres by Variety Missouri, Selected Years




## Bearing Acres by Variety Missouri, Selected Years

| Variety | 2011 | | 2013 | | 2015 | |
|---|---|---|---|---|---|---|
| | Bearing Acres *acres* | % of Total % | Bearing Acres *acres* | % of Total % | Bearing Acres *acres* | % of Total % |
| Vignoles | 251.7 | 14.8 | 234.4 | 13.8 | 262.2 | 15.4 |
| Vidal Blanc | 118.1 | 6.9 | 109.9 | 6.5 | 139.4 | 8.2 |
| Traminette | 96.3 | 5.7 | 89.7 | 5.3 | 114.7 | 6.7 |
| St. Vincent | 45.7 | 2.7 | 42.6 | 2.5 | 44.9 | 2.6 |
| Seyval | 23.9 | 1.4 | 22.2 | 1.3 | 35.0 | 2.1 |
| Norton | 295.3 | 17.4 | 275.0 | 16.2 | 351.4 | 20.7 |
| Concord | 146.4 | 8.6 | 136.3 | 8.0 | 120.5 | 7.1 |
| Chardonel | 150.2 | 8.8 | 139.8 | 8.2 | 66.4 | 3.9 |
| Chambourcin | 161.6 | 10.0 | 150.5 | 8.8 | 177.7 | 10.5 |
| Cayuga | 63.5 | 3.7 | 59.1 | 3.5 | 71.8 | 4.2 |
| Catawba | 145.4 | 8.6 | 135.4 | 8.0 | 111.3 | 6.6 |
| Other Hybrid | NA | NA | 216.3 | 12.7 | 199.6 | 11.7 |
| Other Vinifera | NA | NA | 89.4 | 5.3 | 4.6 | 0.3 |
| **TOTAL** | **1,700** | **100.0** | **1,700** | **100.0** | **1,700** | **100.0** |